

# NJ REEF NEWS

2002 Edition

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## The Creation of the "Jack's Spot" Reef

On July 23, 2001, the Division of Fish and Wildlife sank the APL-31 to create "Jack's Spot" Reef.

The APL-31 is a Navy barracks craft or personnel housing barge. It served as a floating dormitory for repair crews that had to work on disabled ships in harbors without shipyards. The ship is equipped with three galleys, a laundry, extensive officer and crew quarters and several machine shops. The vessel is massive: length = 261', beam = 49' and height = 50'; by volume, it is the second largest ship sunk on New Jersey reef sites since the Reef Program began in 1984. It joins 109 other ships and barges that have been intentionally sunk along the New Jersey coast by the Division of Fish and Wildlife for the purpose of building marine fish and shellfish habitat and fishing and diving reefs. The vessel was built for the Navy in

1944. It was acquired by the New Jersey State Agency for Surplus Property from the Philadelphia Naval Shipyard where it was mothballed. In June, the vessel was moved to a commercial dock operated by Carbon Service Corporation, a contractor commissioned to prepare the APL-31 for sinking. Since the vessel has no engines or fuel tanks, clean up was limited to removing a small amount of floatable debris. After cleaning, the vessel was inspected by the Philadelphia District of the U.S. Coast Guard, which approved it as environmentally safe for sinking in the ocean. The primary tasks facing the contractor were to remove all doors and hatches and to cut numerous holes in watertight bulkheads and decks to facilitate flooding with water and purging of air.

(continued on page 7)



New Jersey Department of Environmental Protection  
Division of Fish and Wildlife

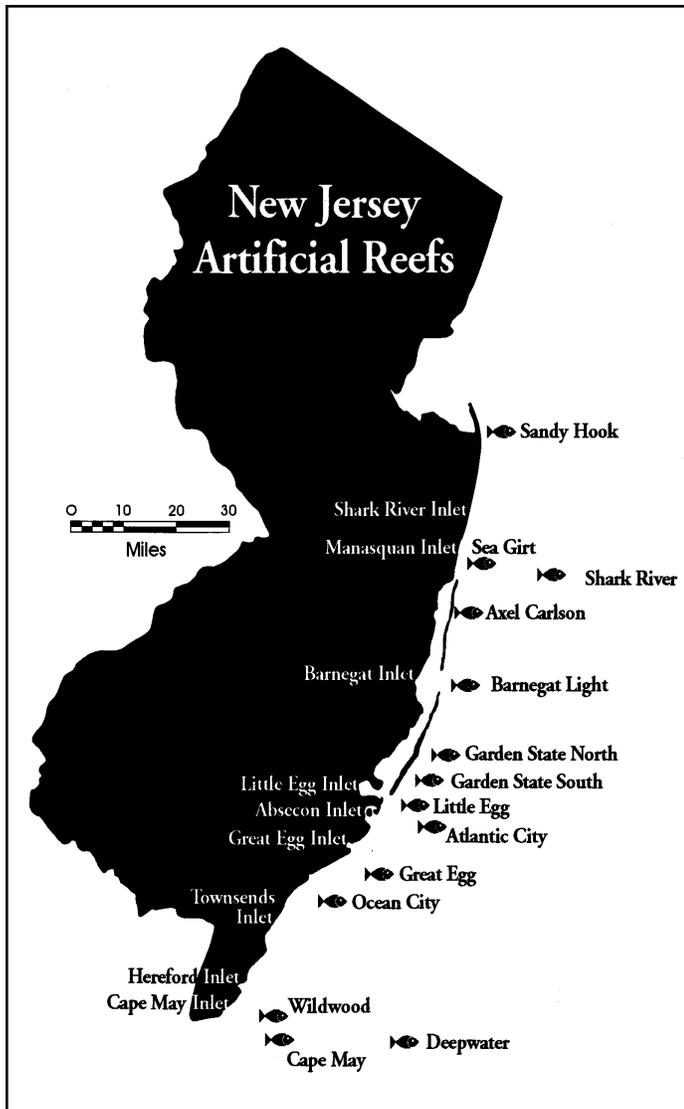


# Objectives of The Reef Program

New Jersey's Reef Program is administered by the Department of Environmental Protection's Division of Fish and Wildlife. The objectives of the program are to construct hard-substrate "reef" habitat in the ocean for certain species of fish and shellfish, new fishing grounds for anglers and underwater structures for scuba divers.

In constructing and managing reefs, the goal is to spread the benefits of reef resources to as many people as possible. The intent of the program is not to change New Jersey's marine environment, but rather to enhance a small portion, less than 1 percent of the sea floor, to benefit 150 species of marine life that prefer structured habitat.

*Based on your experience as an angler or diver, how would you rate our performance in meeting these objectives?*



## REEF PHOTOS WANTED

Send us a photo of your reef catch. The best ones will be published in Reef News. With your photo, indicate the names of the people, the size of your catch, the reef site, date caught and boat name.

## REEF WEB SITE

ATTENTION: "CYBER DIVERS"

The New Jersey Division of Fish and Wildlife's Internet web site provides information about New Jersey artificial reefs: [www.njfishandwildlife.com](http://www.njfishandwildlife.com).



# Scuba Diving Activities in New Jersey



In 2000, the Division of Fish and Wildlife conducted an intensive survey of reef and wreck fishing and diving activities. The results of the fishing portion of the study were reported in last year's Reef News. In comparison with angling, scuba diving in New Jersey has a much smaller number of participants, and both its harvest of marine species and consequent impact on the fisheries resources of reefs and wrecks is minimal.

In 2000, New Jersey's recreational dive boat fleet consisted of an estimated 620 private and 38 charter boats. These vessels undertook a combined 2,664 dive trips in 2000, involving 19,728 divers who made 37,482 dives. Artificial reefs accounted for 62 percent of the private and 33 percent of the charter boat diving trips. The Sea Girt, Shark River and Cape May reef sites were the most popular. Sea Girt offers 23 shipwrecks, including a number of tugs used as check-out dives, in 60' to 80' depths. The Shark River Reef holds the largest reef wrecks, including the 460' USS Algol, which is frequented so often by New Jersey and New York dive boats that it is called "the parking lot." Shark River Reef wrecks lie in deep depths, up to 135', which require more experience from divers. The Cape May Reef provides 18 wrecks in an area of the coast that has fewer wrecks available to divers; the 157' Coast Guard buoy tender Red Oak has become the favorite dive attraction on this southern reef.

| Total estimated catch of New Jersey scuba divers in 2000 |             |                    |
|--|-------------|--------------------|
| <u>Species</u>   | <u>Unit</u> | <u>Total Catch</u> |
| Sea Bass   | Number      | 3,436              |
| Tautog   | Number      | 5,081              |
| Summer Flounder  | Number      | 535                |
| Lobster  | Number      | 17,255             |
| Mussels  | Pounds      | 32,285             |
| Scallop  | Number      | 1,269              |

While fishermen are intent on catching fish, divers have other options available to them. Lobstering and spearfishing are important, representing 45 and 14 percent, respectively, of divers' primary interests, but observing marine life (18 percent), photography (11 percent) and artifact hunting (8 percent) provide alternate non-consumptive activities.

While anglers caught an estimated 7.9 million fish on New Jersey wrecks and reefs during 2000, divers harvested relatively insignificant numbers (in terms of fisheries management) of fish and shellfish as shown in the table above.



# SCUP—A Profile

by Stacey Reap

**COMMON NAME:** Scup, also commonly known as porgy.

**SCIENTIFIC NAME:** *Stenotomus chrysops*.

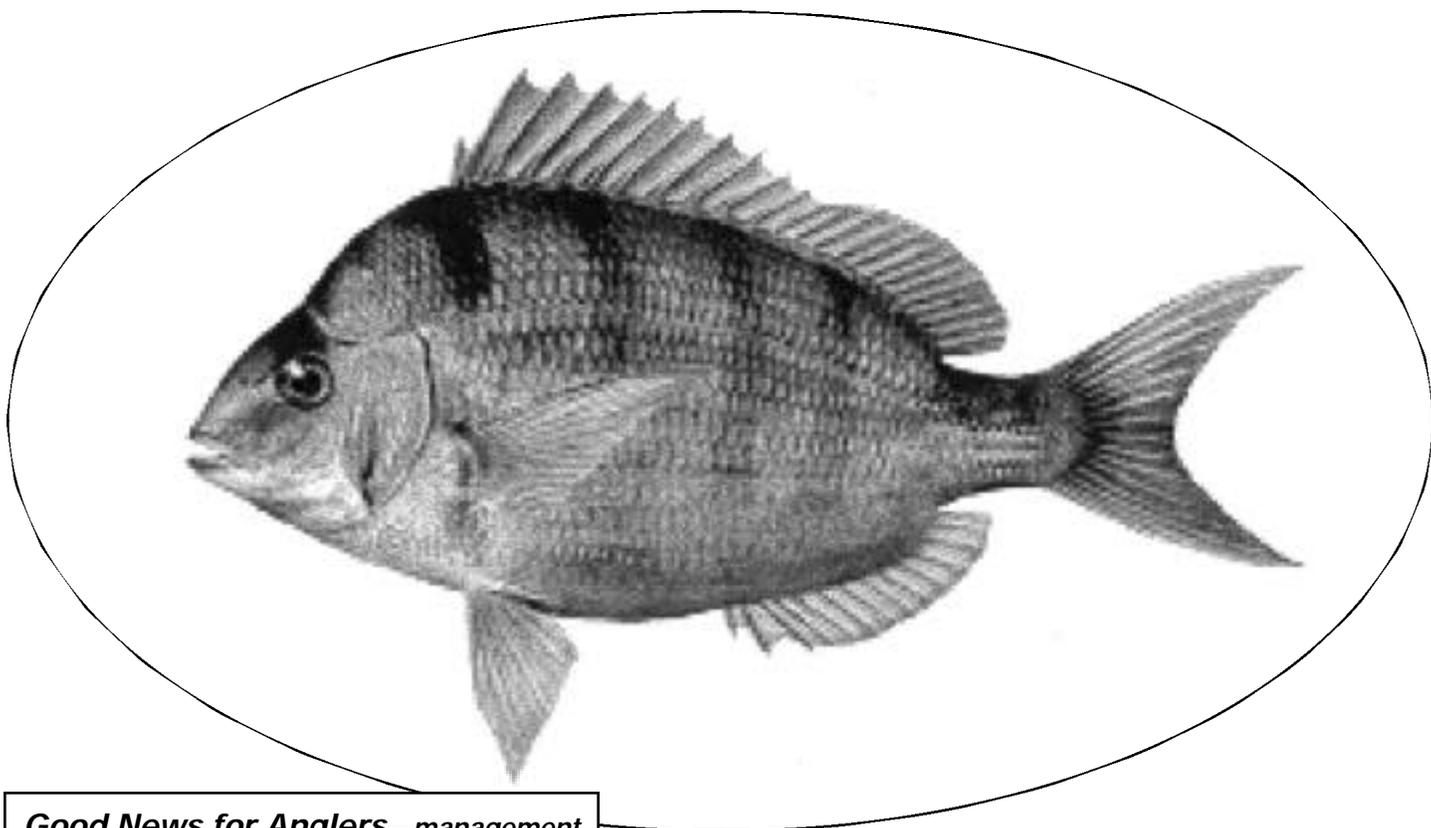
**RANGE:** Scup have been found along the Atlantic coast from Bay of Fundy and Sable Island Bank, Canada, to as far south as Florida; however, the greatest concentrations can be found from Massachusetts to North Carolina. Depending upon the season, they can be found from coastal waters and estuaries out to depths of approximately 650 ft. along the outer continental shelf. A separate population of scup, referred to as the "southern porgy" or *S. aculeatus*, is referenced in several South Atlantic Bight studies; however, there is no official differentiation made between the two populations by the American Fisheries Society.

**SIZE:** Scup of both sexes are sexually mature by age 3, at an average length of 8.3 in. Historically, scup have been reported at lengths of 18 in. and up to 20 years of age, but the current Middle Atlantic Bight

population is composed mostly of younger fish, few older than 7 and larger than 13 in.

**FOOD AND FEEDING:** Juvenile scup feed on small organisms, such as polychaete worms, amphipods, small crustaceans and mollusks, as well as fish eggs and larvae. While copepods and mysids are more important to early juveniles, the diet of larger juveniles is more dependent upon bivalve mollusks, such as razor clams and blue mussels. The scup diet typically consists of a mix of reef and sandy-bottom prey, with adult fish having broad culinary tastes ranging from small crustacea, squid and fish to polychaetes, mollusks, vegetable detritus, hydroids and sand dollars. With two rows of strong molars in their jaws, scup are able to crush hard-shelled prey.

**MIGRATION:** Scup in the Middle Atlantic Bight demonstrate a pronounced seasonal migration from summer inshore grounds to offshore wintering areas along the outer continental shelf. They also show movement from north to south, although few fish tagged in the New England/New York vicinity in the



**Good News for Anglers—management strategies, including recreational size limits and commercial quotas, are paying off. Over the next few years, more and bigger scup will appear on NJ reefs.**

summer are caught south of Cape Hatteras. As coastal water temperatures drop below 7.5°C (45°F) in September, scup begin migrating in schools of similarly sized fish. Schools from the Mid-Atlantic arrive offshore in December, wintering in deep water as far south as North Carolina, their distribution dependant upon water temperature. Bottom water with a temperature of 7.3°C (45°F) is their lower preferred limit, with the location of this favored isotherm influenced by the Gulf Stream. The migratory patterns of the scup population south of Cape Hatteras are unclear, although the fish may move offshore during the coldest weather.

**SPAWNING:** Scup travel inshore to spawn once a year when the water warms past 10°C (50°F), which occurs May through June in New York and New Jersey bays. Spawning continues in July along coastal Rhode Island and extends through August, when water temperatures are approximately 24°C (75°F). Spawning fish are found in southern Massachusetts shoal waters until late June, after which they move to deeper waters. Eggs are fertilized externally, with scup between 17.5 cm (6.9 in.) and 23 cm (9 in.) averaging about 7,000 eggs per female.

**HABITAT:** Although they are occasionally seen at the surface, scup are bottom-dwelling fish. With a diverse benthic diet and using schooling as a defense strategy, scup do not require structure for habitat, but they can benefit from it. As a result, they are commonly found associated with hard-substrate environments, such as mussel beds, artificial reefs, rocky outcroppings and wrecks, but are also found in areas with soft, sandy bottom. Once scup travel offshore to winter in deeper waters, their specific habitat preferences become unclear. Although they remain demersal, they have been found dwelling in a variety of offshore habitats.

**RECREATIONAL AND COMMERCIAL IMPORTANCE:** Scup are important to both recreational and commercial fishermen in New Jersey, but, as a result of overfishing and habitat loss, scup catches have become less abundant. The 1998 total combined New Jersey commercial and recreational landings of just over 5 million pounds were the lowest in the 1981-1999 time frame, with 1999 showing only a slight increase to 5.2 million pounds. Commercial landings in 1997 were the lowest since 1930, at only 7% of the 1960 peak landings of 48.5 million pounds. Recreational catches have also declined. In the early 1950's, scup comprised 33 to 49 percent of the state's party boat catch; the total recreational catch amounted to 2 million pounds. In contrast, in 2000, New Jersey anglers kept only 335,000 scup,



**Scup on sea floor**

(PHOTO BY HERB SEGARS)

probably less than 200,000 pounds. The principal commercial fishing gear for scup is the otter trawl.

The fishery is now managed under the Summer Flounder, Scup and Black Sea Bass Fishery Management Plan, which establishes annual gear regulations and quotas for commercial operations, as well as recreational size and possession limits. Recreational fishermen accounted for 20-50% of the total annual coastwide catch from 1985-1999, taking 1.8 million pounds of scup in 1999. In 2001, the New Jersey recreational regulations allowed for a possession limit of 50 fish over 9 in., with a season running July 4 through Dec. 31. Under these regulations, the scup catch increased in 2001 to 585,000 fish.

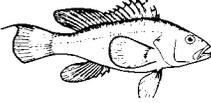
Recreational anglers use small hooks on top and bottom rigs to catch scup. The most commonly used baits are squid and clam. Party boats account for the majority of the recreational scup catch.

**REFERENCES:** Range, Steimle, et al. (1997), Morse (1978); size, Steimle, et al. (1997), Terceiro (2001); feeding, Steimle et al. (1997), Morse (1978), Murdy, et al. (1997); migration, habitat and spawning, Steimle, et al. (1997); fishery, Terceiro (2001), Beal et al. (2000); recreational catches, Younger and Zamos (1955), Figley et al. (2001).

## Reef Joke

**What sits on the bottom of the ocean and trembles?**

Answer: Page 6

==  == **New Wrecks in '01** ==  ==



**Jack's Spot**—A 261' Navy barracks craft sunk on July 23 on the Shark River Reef at DGPS 4006.60 7341.50. Sponsored by the Meyer family in memory of Jack Meyer, long-time chairman of the New Jersey Marine Fisheries Council.



**Dr. Tom's**—A 120' Coast Guard cutter sunk on September 20 on the Cape May Reef at DGPS 3852.81 7440.59. Sponsored by the Natoli family in memory of Dr. Tom Natoli.



**Joan LaRie III**—A 95' tug sunk on October 30 on Axel Carlson Reef at Loran C 26920.8 43464.3. Sponsored by friends of the Norma K in memory of the 8 lives lost during the sinking of the charter boat Joan LaRie III in 1984.



**Jim Lynch**—A 178' tanker barge sunk on October 30 on Axel Carlson Reef at DGPS 4002.84 7359.58. Sponsored by the Greater Point Pleasant Charter Boat Association in memory of Charter Captain Jim Lynch, who died in the World Trade Center disaster.



**Travis Stephen**—A 96' tug sunk on the Sea Girt Reef on October 31 at DGPS 4008.18 7355.82. Sponsored by Captains Steve Nagiewicz and Dan Crowell.

**Reef Joke Answer**  
A nervous wreck

## Jack's Spot *(continued from page 1)*

Twenty-four hours before the sinking, the vessel was towed from Philadelphia down the Delaware River and then north along the coast to the Shark River Reef, located 16 miles off Manasquan Inlet. The Shark River Reef has depths of 125 feet, which are deep enough to accommodate the high profile of this large vessel and still have enough clearance to allow for navigation of large ships. After anchoring the APL-31 in position, a joint team of State Police and Navy demolition experts set explosive charges in the bow and stern. After detonation, it took about 13 minutes for the vessel to sink beneath the waves. Once the bubbles cleared, divers entered the water

and found the ship resting with a hard starboard list on the sea floor.

The APL-31 was renamed "Jack's Spot" in memory of Jack Meyer, a dedicated saltwater fisherman from the Manasquan River and the Chairman of New Jersey's Marine Fisheries Council between 1984 and 1998. The "Jack's Spot" joins eight other large vessels—a Navy attack cargo transport, five oil tankers and two tugboats—that have been sunk on the Shark River Reef over the past 10 years. This reef is used so extensively by divers that it is referred to as the "parking lot." Party boats also fish on the reef, especially during colder months, catching ling, sea bass, cod and pollock.



*The "Jim Lynch" gives up its last gasp of air as the Axel Carson Reef receives another shipwreck.*

## Accomplishments 1984-2001

Since the inception of the Division of Fish and Wildlife's Reef Program in 1984, 1,828 patch reefs have been built on New Jersey's network of 14 ocean reef sites. A patch reef is a several-square-yard to several-acre reef created by sinking a ship or placing a barge load of other material on the sea floor. In 2001, 451 patch reefs were constructed.

| <u>Reef Material</u> | <u>Patch Reefs Built In 2001</u> | <u>Total Patch Reefs Built 1984-2001</u> |
|----------------------|----------------------------------|--|
| Rock                 | 427                              | 819                                      |
| Army Vehicles        | —                                | 397                                      |
| Tire Units           | —                                | 228                                      |
| Concrete             | 17                               | 197                                      |
| Vessels, Barges      | 5                                | 114                                      |
| Reef Balls           | 2                                | 51                                       |
| Other                | —                                | 22                                       |
| <b>TOTAL</b>         | <b>451</b>                       | <b>1828</b>                              |

## Reef Plans for 2002

|                    |                     |
|--------------------|---------------------|
| Reef Ball Habitats | 1,200               |
| Dredge Rock        | 250,000 cubic yards |
| Concrete           | 20,000 cubic yards  |
| Hay-de             | 85' tug             |
| Reinauer           | 280' tanker         |
| Tibbits            | 300' tanker         |
| Concrete Pipe      | 2,000 pieces        |
| Wedding Barge      | 109' deck barge     |

# Meet the People Behind the Reef Program

New Jersey's Reef Program is not a faceless, government bureaucracy. Instead, it is a small group of people who love the marine environment and are working hard to improve both conditions for marine life and opportunities for saltwater anglers and divers along the Jersey coast.

Here is a list of some of the jobs we do:

- Select reef sites
- Obtain permits
- Inspect materials
- Prepare ships
- Fabricate reef structures
- Construct reefs

- Raise funds
- Conduct biological studies
- Conduct fishing and diving surveys
- Provide public information



*John Makai, Supervising Fisheries Biologist*



*Bill Figley, Principal Fisheries Biologist*



*Jeff Carlson, Technician I*



*Barry Preim, Technician I*



*Deborah Vareha, Technician I*



*Linda Barry, Research Consultant*



*Stacey Reap, Assistant*



*Jennifer Daetsch, Assistant*



# ARTIFICIAL REEF DIVING SURVEY

## *We need your input*

Now is the chance for you to tell us what you think, positive or negative, of New Jersey's Artificial Reef Program. If you have some opinions or ideas that will help us either assess the effectiveness of our reef-building efforts or make future improvements, please fill out this survey and return it to us. Please read each question carefully before answering. The results of this survey will be presented in next year's Reef News.

1. I am associated with diving in NJ ocean waters as a (**check** all that apply):

party/charter boat captain     private boat captain     party/charter diver  
 dive on friend's boat     dive from beach     dive shop owner  
 commercial diver     dive club member

2. How many years have you been a scuba diver? \_\_\_\_\_years

3. How many years have you dived on NJ artificial reef sites? \_\_\_\_\_none\_\_\_\_years

4. Please indicate the activities you participate in while diving in NJ ocean waters:  
(**check** all that apply):

observing marine life     finding artifacts     spearfishing  
 catching lobster     underwater photography/video

5. Approximately how many dive trips did you make in NJ ocean waters in 2001?

**Number** of trips\_\_\_\_\_.

6. How many of these trips during 2001 were on NJ artificial reef sites? Indicate number by reef site.

### **Number of Dive Trips—Do not use check marks**

|                                       |   |   |
|---------------------------------------|---|---|
| <input type="checkbox"/> Sandy Hook   | <input type="checkbox"/> Shark River    | <input type="checkbox"/> Sea Girt           |
| <input type="checkbox"/> Axel Carlson | <input type="checkbox"/> Barnegat Light | <input type="checkbox"/> Garden State North |
| <input type="checkbox"/> Little Egg   | <input type="checkbox"/> Atlantic City  | <input type="checkbox"/> Garden State South |
| <input type="checkbox"/> Great Egg    | <input type="checkbox"/> Ocean City     | <input type="checkbox"/> Deepwater          |
| <input type="checkbox"/> Wildwood     | <input type="checkbox"/> Cape May       |   |

7. What types of structures did you dive on in 2001? (check all that apply)

shipwrecks     army tanks     rock  
 concrete     tire units     subway cars

8. In all of your diving experiences over the years, please check the artificial reef wreck/structures that you have dived on:

### **Shark River**

|   |   |   |
|---|---|---|
| <input type="checkbox"/> Algol, transport   | <input type="checkbox"/> Coney Island, tanker | <input type="checkbox"/> Alan Martin, tanker        |
| <input type="checkbox"/> Sam Berman, tanker | <input type="checkbox"/> Mako Mania, tanker   | <input type="checkbox"/> Jack's Spot, housing craft |
| <input type="checkbox"/> Capt. Bart, tanker | <input type="checkbox"/> Billy D, tug         | <input type="checkbox"/> HRFA, tug                  |

### **Sea Girt**

|  |  |  |
|--|--|--|
| <input type="checkbox"/> Rockland Co., tug | <input type="checkbox"/> Spartan, tug      | <input type="checkbox"/> Dykes, schooner |
| <input type="checkbox"/> Army Tanks        | <input type="checkbox"/> Rhonde Joyce, tug | <input type="checkbox"/> Venturo, tug    |
| <input type="checkbox"/> Dry Dock          | <input type="checkbox"/> Subway cars       | <input type="checkbox"/> Morania Barge   |
| <input type="checkbox"/> Horseshow, wreck  | <input type="checkbox"/> Swenson Barge     | <input type="checkbox"/> Weehawkin, tug  |
| <input type="checkbox"/> Fisherman, tanker |  |  |

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**Garden State North**

- |                           |                        |                          |
|---------------------------|------------------------|--------------------------|
| _____ Mary C. tanker      | _____ Fatuk, freighter | _____ Dumont, tanker     |
| _____ Choctaw, tug        | _____ Aqua II, supply  | _____ Molasses Barge     |
| _____ Army Tanks          | _____ Dobilas, tanker  | _____ Pesolano, tug      |
| _____ Reckless, freighter | _____ Jerry, tug       | _____ Shirley Ann, barge |
| _____ Rhino, crewboat     | _____ Miller, barge    | _____ Starcraft, barge   |
| _____ Holgate, longliner  |                        |                          |

**Atlantic City**

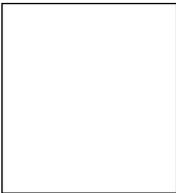
- |                                |                             |                              |
|--------------------------------|-----------------------------|------------------------------|
| _____ Pauline Marie, freighter | _____ Big Mama, tug         | _____ Blue Crown, freight    |
| _____ Point Pub, tug           | _____ Morania Abaco, tanker | _____ First Lay, trawler     |
| _____ Boston, lightship        | _____ Troy, tug             | _____ Francis Bushey, tanker |
| _____ Nils S, trawler          | _____ Beach Haven, trawler  | _____ Concord, barge         |
| _____ The American, schooner   |                             |                              |

**Cape May**

- |                                  |                          |                                |
|----------------------------------|--------------------------|--------------------------------|
| _____ Peggy Diane, landing craft | _____ Winthrop, trawler  | _____ Laita, trawler           |
| _____ Cape Strait, cutter        | _____ Ceila Brown, tug   | _____ Sea Transporter, trawler |
| _____ Onandaga, tanker           | _____ Unreliable, tanker | _____ Red Oak, buoy tender     |
| _____ Point Swift, cutter        |                          |                                |

9. Considering all the factors that affect your diving experience, what do you **like** about NJ's Artificial Reefs? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
10. What do you **dislike** about NJ's Artificial Reefs? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
11. What suggestions do you have for improving any aspects of New Jersey's Reef Program for divers?  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Thank you very much for your information. Please cut out, fold, tape, stamp and mail this survey form back to us.**



**Diver Survey  
 NJ Division of Fish and Wildlife  
 P.O. Box 418  
 Port Republic, NJ**

**08241**



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# 2001 and Winter, 2002 Reef Adoptions

## **"Strathmere Fishing Club Reef"**

On April 19 and May 2, 57 concrete piling cut-offs sponsored by the Strathmere Fishing Club were placed on the Ocean City Reef.

## **"Burlington County Fish and Game Protection League Reef"**

The Burlington County Fish and Game Protection League sponsored a 20 Reef Ball habitat reef on the Barnegat Light Reef.

## **"PECO Energy Reef"**

The PECO Energy Company sponsored the creation of a reef out of the Ocean City-Longport Bridge rubble on the Ocean City Reef.

## **"Arnie Becker Reef"**

Len Berman sponsored a 20 Reef Ball habitat reef on the Garden State South Reef Site.

## **"Ryon's Reef"**

David Ryon sponsored the creation of a 20 Reef Ball habitat reef on the Barnegat Light Reef Site.

## **"Vivian Johnson Reef"**

40 Reef Balls sponsored by Les and Georgette Johnson were placed on the Axel Carlson Reef in memory of their daughter, Vivian Johnson, who lived to fish and swim in the ocean at Ortley Beach.

## **"Bolger Reef"**

Gerard Bolger sponsored the creation of a 20 Reef Ball habitat reef on the Axel Carlson Reef Site.

## **"Sam and Carly's Reef"**

Communications Cable Services, Inc. sponsored the creation of a 20 Reef Ball habitat reef on the Axel Carlson Reef Site.

## **"Fish Hawks Reef"**

The Fish Hawks sponsored the creation of a 20 Reef Ball habitat reef on the Barnegat Light Reef Site.

## **"Sam Haines's Other Hot Spot"**

Bob Haines sponsored the creation of a 20 Reef Ball habitat reef on the Barnegat Light Reef in memory of Sam Haines.

## **"Edna B. Reef"**

William J. Beihl sponsored a 20 Reef Ball habitat reef on the Barnegat Light Reef Site.

## **"Speck's Reef"**

The friends and relatives of Ronald A. Speck, Sr. sponsored the creation of a 20 Reef Ball habitat reef on the Garden State South Reef Site in his memory.

## **"Michael P. Sendeki Reef"**

Family and friends sponsored the creation of a 30 Reef Ball habitat reef on the Axel Carlson Reef Site in his memory.

## **"Ken Hall Memorial Reef"**

The friends and co-workers of Ken Hall sponsored the creation of a 20 Reef Ball habitat reef on the Axel Carlson Reef Site.

## **"Billy Harvey Reef"**

William and Shirley Harvey sponsored the creation of a reef from concrete bridge piling cut-offs on the Great Egg Reef in memory of their son, Billy.

## **"Irv Hurd Reef"**

Gwyn Hurd sponsored the creation of a 20 Reef Ball habitat reef on the Barnegat Light Reef Site.

## **"Visceglia Reef"**

Summit Associates, Inc. sponsored the creation of a 20 Reef Ball habitat reef on the Axel Carlson Reef Site.

## **"Karpowicz Brothers Reef"**

John Karpowicz sponsored the creation of a 20 Reef Ball habitat reef on the Axel Carlson Reef Site.

## **"Applejack Reef"**

Patrons of the party boat Applejack sponsored a reef from bridge pilings on the Atlantic City Reef Site.

## **"Manasquan River Marlin and Tuna Club Reef 1"**

The Manasquan River Marlin and Tuna Club sponsored a 20 Reef Ball habitat reef on the Axel Carlson Reef Site.

## **"E.J. Lejeune Memorial Reef"**

Joe and Linda Lejeune and friends sponsored a 40 Reef Ball habitat reef on the Axel Carlson Reef Site in memory of their son, E.J.

## **"Hal the Pal Reef"**

Amtrak's Electric Traction Department sponsored a 20 Reef Ball reef on the Garden State South Reef Site in memory of Hal Binder.

## **"Bill Hornidge Reef"**

The New Jersey Division of Fish and Wildlife sponsored a 37 Reef Ball reef on the Barnegat Light Reef Site in memory of Bill Hornidge, Director of the Ocean County Bridge Department.

## **"Rich's Reef"**

Friends and family of Richard Labor sponsored a 20 Reef Ball habitat reef on the Barnegat Light Reef Site.

## **"Jim Dwyer/John Walton Reef"**

Jim Dwyer sponsored a 20 Reef Ball habitat reef on the Axel Carlson Reef Site.

## **"Sea Horse"**

James Slim sponsored a 20 Reef Ball habitat reef on the Garden State South Reef Site.



*We build reefs the old-fashioned way—brute force. Cut-off concrete pilings from the Ocean City-Longport Bridge, weighing 1100 pounds per linear foot, were pushed off a barge to build reefs on Ocean City, Great Egg and Atlantic City reef sites.*

# PARTICIPATING AGENCIES

*The following agencies have helped make New Jersey's Reef Program a success:*

## **Federal**

U.S. Fish and Wildlife Service  
U.S. Coast Guard  
U.S. Army Corps of Engineers  
National Marine Fisheries Service  
U.S. Navy and Reserves  
U.S. Army and Reserves  
U.S. Customs Service  
U.S. Environmental Protection Agency

## **State**

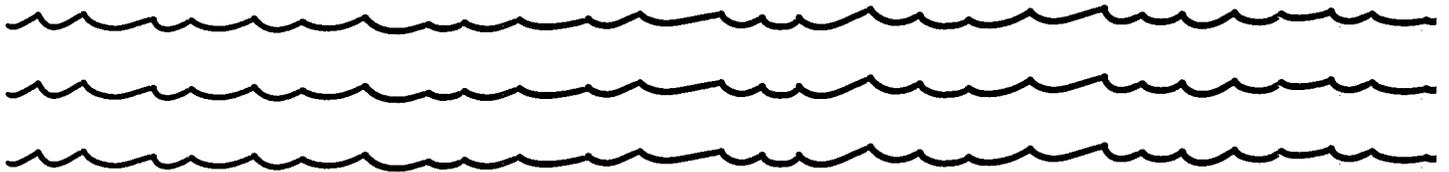
N.J. State Police  
N.J. State Police, Marine Bureau  
State Agency for Surplus Property  
Division of Land Use Regulation  
Southern State Correctional Facility  
N.J. Army National Guard

## **County**

Ocean County Bridge Department  
Ocean County Department of Corrections  
Cape May Municipal Utilities Authority

## **Municipal**

Atlantic City Police Bomb Squad

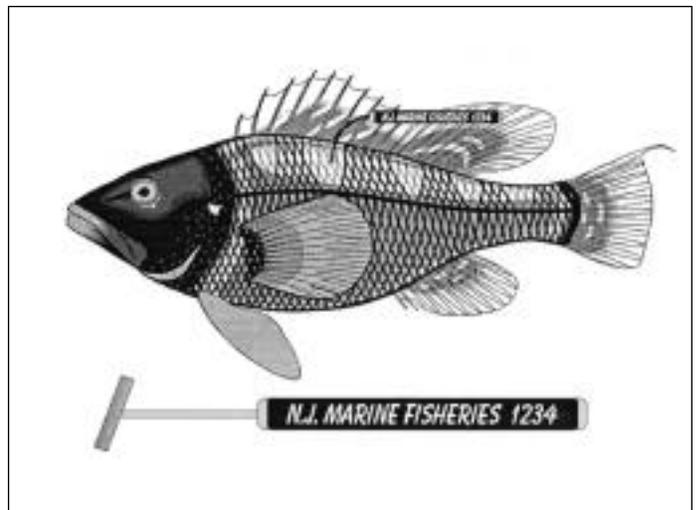


## **Anglers, We Need Your Help Please report tagged reef fish**

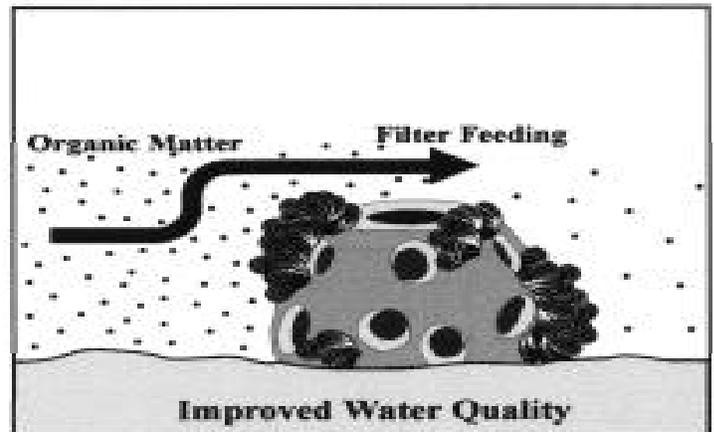
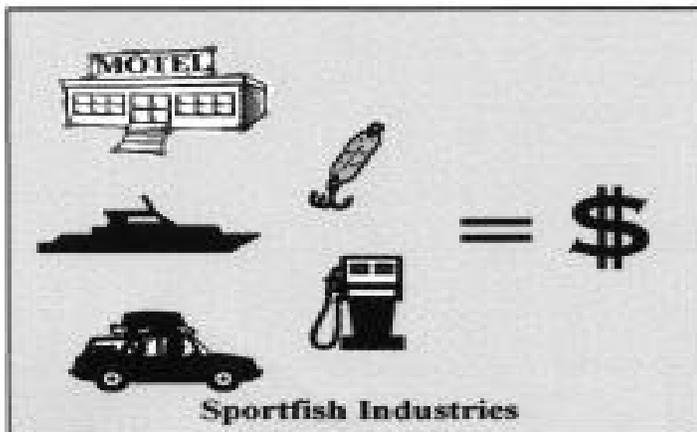
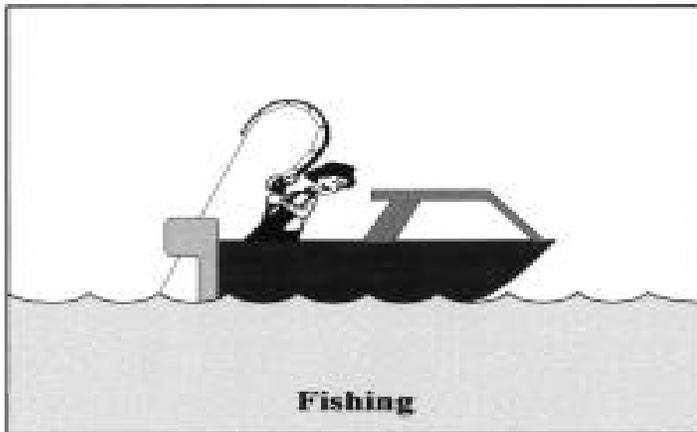
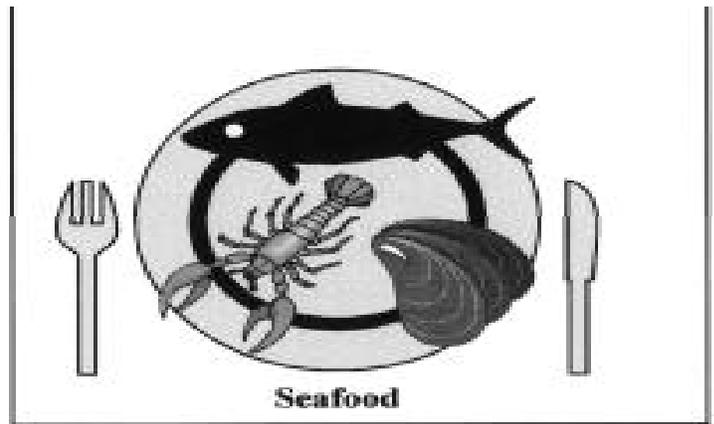
To date, we have tagged over 7,500 sea bass, tautog and cunner (begall) on reefs and wrecks along the Jersey coast. The purpose of this effort is to investigate the local movement patterns, long-range seasonal migrations and mortality rates of reef fish. The tags are colored, small spaghetti-like streamers that are attached to the fish's back just below the dorsal fin. The tags have a unique identification number for each fish and a phone number for reporting.

If you catch a tagged reef fish, the first step is to record both the tag number and the telephone number, which are both printed on the tag. The printing is tiny, so look carefully when reading the tag numbers. Some anglers have mistakenly reported the phone number as the fish's tag number, which, of course, rendered that fish unidentifiable. Please call us at 609-748-2020 during weekday working hours (8:30 AM to 4:30 PM) and report the following information:

- (1) where you caught the fish—a named location, such as Shrewsbury Rocks, Flour Wreck, or Sea Girt Reef, or the navigational coordinates.
- (2) the date you caught the fish
- (3) and what you did with the fish and tag.



If you do not want to keep the fish, simply record the tag number and then, release the fish alive with the tag still attached. Some fish have already been recaptured more than once. We will send you a certificate that describes where and when the fish was tagged and how far it has traveled.



## Benefits Derived From Artificial Reefs

**Marine Life Production and Biodiversity**—Reefs add a hard-substrate habitat to NJ’s sandy sea floor. Studies show that reef habitats are colonized by 200 species of fish and other marine life. Reef structures may have 800 to 1000 times more biomass (weight) of marine organisms than an equal area of sea floor.

**Seafood**—Both recreational and commercial fisherman harvest millions of pounds of fish, lobsters, crabs and mussels from NJ reefs each year.

**Fishing**—Reefs are becoming extremely popular with recreational fisherman. Anglers caught 4.8 million fish on NJ reefs in 2000.

**Diving**—Artificial reefs accounted for about 36 percent of scuba diving activities in NJ’s ocean waters in 2000.

**Sportfish Industries**—Without counting the costs of boats, recreational fishermen and divers spent about \$15 million in 2000 to enjoy fishing and diving on NJ reefs.

**Improved Water Quality**—Many of the animals, such as blue mussels, barnacles and sponges, which live in large numbers on reef structures, filter algae, organic matter and bacteria from the water column, thus improving both the cleanliness and clarity of NJ’s ocean waters.



# 2001 and Winter 2002 Reef Ball Habitat Sponsors



*Paramus High School sponsored the “Mrs. Caccavale’s PHS Marine Biology class 2000-2001 Reef.”*

*Barry Wiegmann sponsored the “Walter R. Cramsie Reef.”*

*The Village Harbour Fishing Club sponsored the “11 September 2001 Reef.”*

*The DiVila family sponsored the “Big Ed’s Reef.”*

*Centra State Medical Center Main Laboratory sponsored the “Kamilowitz Reef” in memory of Kenneth Kamilowitz.*

*The Forked River Tuna Club sponsored the “FRTC Reef.”*

*Stephanie Burke sponsored the “Arthur Freer Reef.”*

*David Barbara sponsored the “Aaron Avellas Reef” in memory of Captain Aaron Avellas.*

*Susan Zaleski sponsored the “Nick and Dylan Seip Reef.”*

*Chet McIntyre sponsored the “Chloe D Reef.”*

*Tri-state anglers sponsored the “Bob Kennedy Reef” in memory of Bob Kennedy.*

*Bill Hedley sponsored the “Bite Me Reef.”*

*Fred Cioffi sponsored the “CTS Reef.”*

*Donna and Joe Koenig sponsored “Paul’s Reef.”*

*Margaret McCaffrey sponsored the “Niel’s Blue Reef.”*

*Captain Tom Thompson sponsored the “Cathrine S. Reef.”*

*Vince Capone sponsored the “Marine Search and Survey Reef.”*

*Frank Trafford sponsored the “FLT Reef.”*

*Barbara Fiocca sponsored the “Jay Handler Reef.”*

*Bob Okupski sponsored the “Matthew’s Reef.”*

*Leonard Traaber sponsored the “L.T. Lovin 2001 Reef.”*

*Florence Krigger sponsored the “Gene’s Store Reef.”*

*Teresa Bezdalous-Hadyka sponsored “Kadyka’s Hideaway Reef.”*

*Captain Manny Pires sponsored the “Captain Pires and Family Reef.”*

*Barb and Lou Meier sponsored “Meier’s Reef.”*



*Thanks to all of our sponsors, another 1600-pound Reef Ball swings overboard, awaiting deployment on a New Jersey reef site.*

# ADOPT-A-REEF HABITAT

A great gift or memorial for a fisherman or diver

*CREATE AN UNDERSEA CONDO FOR NEW JERSEY MARINE LIFE*

New Jersey's marine life - sea bass, lobsters, crabs and many others - need a place to live. You can help by sponsoring the placement of a concrete reef habitat on a New Jersey ocean reef. Not only will your habitat create a home for marine life to thrive, but it will also provide anglers and divers a new place to fish and explore.

A tax-deductible donation will help pay for the fabrication and transportation of your habitat(s) to a New Jersey ocean reef site.

**How much does it cost and what will you receive for sponsoring ocean habitats?**

*Build your own ocean reef*

| Number of Habitats sponsored | Donation | A color chart depicting location of your habitat(s) | Listing as a sponsor in next edition of Reef News | A plaque commemorating your habitat(s) | Your reef name published on NJ reef charts |
|------------------------------|----------|---|---|--|--|
| 1                            | \$200    | yes   | yes   | no                                     | no   |
| 10                           | \$1000   | yes   | yes   | yes                                    | yes  |

## Reef Deployment Schedule

2002 Cape May, Wildwood

2003 Little Egg, Atlantic City

2004 Ocean City, Great Egg

*Effective January 1, 2002*

Adopt-A-Reef Habitat Application—Print Clearly



Sponsor's Name \_\_\_\_\_

Address \_\_\_\_\_

Zip \_\_\_\_\_ Phone No. \_\_\_\_\_

Your habitat name " \_\_\_\_\_ " Number of habitats sponsored \_\_\_\_\_

You donation is tax-deductible

Make check payable to "Sportfish Fund" and mail to:

Adopt-A-Reef Habitat  
 Artificial Reef Association  
 P.O. Box 16  
 Oceanville, NJ 08231



For more information, call the Reef Program at 609-748-2020



# The ultimate reef book is here!

## *A Guide to Fishing and Diving New Jersey Reefs*



- This 64-page book is a complete directory of New Jersey's 14 ocean reef sites, which encompass over 1200 reefs.
- The book features both LORAN and DGPS charts of all of the state's 14 reef sites.
- LORAN and DGPS coordinates of every named reef are provided.
- The pages are made of durable, waterproof plastic designed for use in bad weather and at sea.
- The book can be purchased at many bait and tackle shops or ordered through the mail (an order form is provided below).
- Every fisherman and diver needs these maps to find the sunken treasure (fish and lobster) on New Jersey's 14 reef sites.
- **Don't leave the dock without it.**

### ORDER FORM

## *“The Ultimate Reef Book”*

Name \_\_\_\_\_

Address \_\_\_\_\_

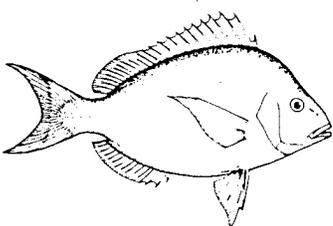
\_\_\_\_\_ Zip \_\_\_\_\_

Phone \_\_\_\_\_

Please send a copy of *“A Guide to Fishing and Diving New Jersey Reefs.”* Enclosed is my check, payable to “ARA” for \$20.00 (\$17.95 for book plus \$2.05 for postage).

**Artificial Reef Association  
PO Box 16  
Oceanville, NJ 08231**

**REEF PROGRAM  
DIVISION OF FISH  
AND WILDLIFE  
P.O. BOX 418  
PORT REPUBLIC, NJ  
08241**



**Postmaster  
Address Correction  
Requested**